

This Glossary includes the definitions of the terms that are used extensively within this document. The definition herein is specific to how the term is used within the FEIS document and not necessarily a standard dictionary definition.

Access

Access is a means of entering or leaving a public road, street, or highway with respect to abutting property or another public road, street, or highway.

Access Control

Access Control is regulating and limiting public and private access to Washington State highways, as required by state law.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) of 1990 is a civil rights law that identifies and prohibits discrimination based on disability. The ADA requires public entities such as WSDOT to design new facilities or alter existing facilities, including sidewalks and trails, so that they are accessible to people with disabilities.

Alignment

Alignment is the centerline of a road, including horizontal and vertical elements, located within the bounds of a corridor.

Alternative

For purposes of an Environmental Impact Statement (EIS), an alternative is a proposed transportation action, usually described in terms of location and mode that is evaluated against the purpose and need of the project. An EIS usually includes a *No-build* or *No-action* alternative, and one or more build alternatives.

Average Daily Traffic (ADT)

ADT is the average daily traffic on a roadway for the design year under consideration.

Build Alternative

The Build Alternative consists of a four-lane freeway (four general purpose lanes, two lanes in each direction) with one HOV lane in each direction between I-5 and SR 161. The Build Alternative includes freeway-to-freeway connections with SR 509, SR 167, and I-5. Also, it includes new local access interchanges at 54th Avenue East and Valley Avenue, and completion of the SR 161 interchange. As

part of the SR 161 interchange, the existing eastern (northbound) bridge over the Puyallup River will be replaced and the existing western bridge will be widened. The Build Alternative also results in the relocation of a part of Hylebos Creek and Surprise Lake Drain. The relocated channel designs will reduce flooding and improve fish and wildlife habitat. A riparian restoration area is proposed for existing Hylebos Creek between SR 99 and 8th Street East, for the relocated Hylebos Creek and Surprise Lake Drain east of I-5, and at Wapato Creek near Freeman Road and Valley Avenue.

Bike Lane

A bike lane is a portion of the highway or street identified by signs and/or pavement markings reserved for bicycle use.

Citizen's Advisory Committee (CAC)

A committee of property owners, business owners, local jurisdictions, and farmers that advises project staff on local issues and concerns within the project area, and assists with improving outreach and communication efforts. This committee meets at key milestones during the project.

Channelization

Channelization is the separation or regulation of traffic movements into delineated paths of travel to facilitate the safe and orderly movements of vehicles, bicycles, and pedestrians. Painted or plastic markings on the pavement are normally used to delineate travel paths.

Clear Zone

The clear zone is the total roadside buffer area, starting at the edge of the traveled way, available for use by errant vehicles. This area may consist of a shoulder, a slope, and/or clear run-out area.

Corridor

A corridor is a strip of land, possibly of varying widths, between two termini within which an alignment is placed and traffic, topography, environment, and other characteristics are evaluated.

Cumulative Impacts (Effects)

Cumulative effects result from the incremental effect of the proposed action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes the other actions.

Direct Impact

Direct impacts from a project are those that occur at the same place and same time as the project. They are generally predictable and associated with the project actions.

Discipline Report (DR)

WSDOT prepares a DR for each environmental subject area for an EIS by conducting field studies, reviewing published data, analyzing project impacts, recommending mitigation, and publishing the results in a technical report. The DRs are the basis for the sections in a DEIS and FEIS, but include information in much greater detail.

Divided Highway

Divided highways separate traffic traveling in different directions with medians, physical barriers, or differing elevations.

Embankment

Embankment is a structure of earth or gravel that is raised to form the foundation for a road.

Environmental Impact Statement (EIS)

The National Environmental Policy Act (NEPA) requires that environmental impacts be considered in federal decisions. NEPA requires an EIS be prepared for major projects that have the potential for significant impacts. A NEPA EIS also provides the documentation required by the Washington State Environmental Policy Act (SEPA).

Footprint

Footprint is an outline of the physical limits of the area impacted by the construction of a roadway, roadway structure, and related facilities, usually described by the limits of clearing, grading, grubbing, excavating, and filling.

Freeway

A freeway is an access-controlled, divided highway that has two or more lanes in each direction. Many freeways widen to incorporate more lanes as they enter urban areas. Access is controlled through the use of interchanges. The type of interchange depends on the kind of intersecting roadway (surface street, rural road, another freeway, urban arterial, etc.).

High Occupancy Vehicle (HOV)

An HOV is a vehicle that carries a specified minimum number of persons, usually two or more. HOVs include buses, vans, transit, and all other vehicles that meet

the minimum occupancy requirements except vehicles (trucks) in excess of 10,000 pounds gross vehicle weight.

HOV Lane

An HOV lane is for the exclusive use of HOV vehicles as defined above. Motorcycles are also allowed in HOV lanes.

Impervious

Impervious surfaces are hard surfaces that prevent or retard water from soaking into soil, thereby increasing the rate or volume of stormwater runoff.

Indirect Impact

Indirect impacts are defined by the Council on Environmental Quality as impacts that are “caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable (40 CFR Section 1508.8).” Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate and related effects on air and water and other natural systems including ecosystems.

Intelligent Transportation Systems (ITS)

ITS are a subset of Transportation System Management and apply advanced technologies in communications and computer science to optimize the safety and efficiency of the existing transportation network. Methods that provide surveillance, control, and driver information are part of ITS.

Interchange

An interchange is a system of interconnecting roadways, in conjunction with ramps and one or more grade separations, which allows traffic to move freely from one roadway to another without crossing another line of traffic.

Interstate System

The Interstate System is a network of routes selected by the state and the FHWA under the terms of the federal aid acts as being important to the development of a national transportation system.

Lane

A lane is a strip of roadway used for a single line of vehicles.

Lead Agency

The Washington State Division of FHWA is the lead federal agency for the project, and they provide guidance and oversight to WSDOT. The Olympic Region of WSDOT leads the planning and environmental analysis phase.

Level of Service (LOS)

LOS is a qualitative measure that describes operational conditions within a traffic stream. This includes factors of speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Limited Access Highway

Limited access highways restrict the locations where traffic may enter the roadway. Driveways and side streets do not connect directly to a limited access highway.

Major Investment Study (MIS)

An MIS is conducted when major transportation projects would require substantial capital outlay and/or investment of public funds. The goal of an MIS is to determine the effectiveness of the proposed project alternatives in providing solutions to identified transportation problems combined with a cost benefit analysis to determine the best use for public funds. The MIS for the SR 167 Extension project began in November 1994 and was completed in October 1995. The MIS evaluated the effectiveness of four alternatives.

Median

The median is a physical barrier or landscaping area that separates two directions of traffic of a highway.

Mitigation Measure

A mitigation measure is a procedure, action, method, structure, or facility that avoids, minimizes, reduces, or eliminates a project's adverse effects or impacts to the environment.

Mitigation Sequencing

Mitigation Sequencing is a stepwise process for eliminating or reducing adverse effects and compensating for those that cannot be avoided. For example, the required order for mitigating potential wetland effects is: avoid impacts, minimize impacts, enhance existing degraded wetlands, create new wetlands, and preserve nearby high quality or unique wetlands.

Net Environmental Benefit Analysis (NEBA)

The Net Environmental Benefit Analysis (NEBA) is an analytical method used to evaluate the success of environmental mitigation measures. This method compares the benefits and costs associated with alternative actions that affect the environment. For the SR 167 project, ecological services were estimated for stream channel, riparian wetland, and riparian upland habitats within the area of the Riparian Restoration Proposal.

No Build Alternative

Under the No Build Alternative, the SR 167 freeway will terminate at North Meridian (SR 161), and the non-freeway SR 167 will continue to I-5 via North Meridian and River Road where it will terminate at the Portland Avenue/Bay Street interchange in Tacoma. The corridor will remain in the present state except for minor improvements and maintenance.

Noise Barrier (Wall)

A noise barrier or wall reduces the effects of traffic noise levels to the adjoining areas. There are two basic types of noise barriers: (1) an earth berm, and (2) a noise wall which can be made of concrete, masonry, metal, wood, glass, and heavy plastic. The evaluation of the intensity of the noise, characteristics of adjacent landforms and structures, and distance to sensitive receptors determine the height, type of material, and whether a proposed noise barrier might be an earth berm, wall, or both.

Option

An option is one of a set of design configurations within the build alternative against which screening criteria is applied.

Park-and-Ride Lot

A Park-and-Ride lot provides parking for people who wish to transfer from private vehicles to public transit or car/van pools. These lots are intended to increase highway efficiency, reduce energy demands, and increase highway safety by reducing traffic congestion.

Partners Committee

The following organizations are members of the Partners Committee: FHWA, WSDOT, Pierce County, Port of Tacoma, Puyallup Tribe of Indians, Puget Sound Regional Council, Pierce Transit, and the cities of Puyallup, Tacoma, Edgewood, Fife, and Milton. The Partners Committee holds regular meetings to provide suggestions and recommendations related to the project.

Pedestrian Facilities

Improvements provided for the benefit of pedestrian travel such as sidewalks, highway shoulders, walking and hiking trails, shared use paths, pedestrian grade separations, and crosswalks.

Preferred Alternative

The Tier I EIS process selected three alternative corridors and a no build alternative for detailed evaluation after initially considering seven preliminary alternative corridor locations. Alternative 2 had the best mix of features for avoiding, minimizing, and mitigating environmental impacts. These impacts included conversion of farmland, housing/business displacements, disruption of drainage patterns, loss of wetlands, and impact to tribal trust lands. Therefore, Alternative 2 was selected as the environmentally preferred alternative (corridor) in the Tier I FEIS.

Project (SR 167 Extension Project)

The proposed project completes the State Route (SR) 167 freeway by building four miles of new six-lane divided facility from its current terminus in Puyallup at SR 161 through the Puyallup River valley connecting to Interstate 5 (I-5) near the 70th Avenue under-crossing. The project will also include a two-mile four-lane divided highway section from SR 509 near the Port of Tacoma to I-5 and SR 167 at the common interchange near 70th Avenue.

Project Stakeholders

Stakeholders include anyone that lives in, uses, or has jurisdiction in the project area. For this project they include: citizens and landowners; businesses and corporations; local cities and Pierce County; state and federal regulatory and resource agencies; Puyallup Tribe of Indians organizations; and interest groups like Friends of the Hylebos Wetlands, Tahoma Audubon Society, and Tacoma Wheelman's Bicycle Club.

Puyallup Tribe of Indians

The Puyallup Tribe of Indians is part of the Puget Sound Salish Indian culture. Tribal relations with the U.S. Government began in 1854. Soon thereafter, the Treaty of Medicine Creek established the Puyallup Reservation. A council of elected tribal members now governs the Puyallup Tribe under the constitution and bylaws established in 1934.

Ramp

A ramp is a short roadway connecting a main line of a freeway with another facility for vehicular use such as a local road or another freeway.

Record of Decision (ROD)

FHWA and WSDOT carefully consider all comments received after an FEIS is issued. They then decide which alternative to select. A Record of Decision (ROD) documents this decision, as well as mitigation and environmental commitments once a build alternative is selected. Issuance of this document by FHWA and WSDOT completes the NEPA and SEPA process.

Tier I Record of Decision (ROD)

On June 9, 1999, FHWA published the Tier I ROD and concluded that the selected alternative (Alternative 2) was the least environmentally damaging practicable alternative. According to the Tier I ROD, implementation of the preferred alternative would include all mitigation measures described in the Tier I FEIS.

Riparian

Riparian is the term used to describe streambanks and adjacent areas along rivers and streams.

Riparian Restoration Proposal (RRP)

The flat topography, high water table, and history of floods in the project area indicate that the use of conventional stormwater ponds would need to be supplemented by additional measures to achieve stormwater management and environmental protection goals. The Riparian Restoration Proposal (RRP) is an innovative approach to stormwater management for this project. The RRP will achieve stormwater management and environmental protection goals by removing existing fill and structures from the floodplain and providing other environmental benefits in terms of wetland enhancement and habitat improvements for fish and wildlife. Some conventional stormwater management facilities are needed, even with RRP.

Riparian Restoration Proposal (RRP) Technical Advisory Group (TAG)

The US Fish and Wildlife Service, NOAA National Marine Fisheries Service, US Army Corps of Engineers, Washington State Departments of Fish and Wildlife and of Ecology, the Puyallup Tribe of Indians, and Friends of the Hylebos Wetlands (a local environmental group) assist FHWA and WSDOT in developing the RRP and have been designated as the Technical Advisory Group (TAG) for the SR 167 Extension project.

Roadway

Roadway is the portion of a highway, including shoulders, for vehicle use. A divided highway has two or more roadways.

Roundabout

A roundabout is a circular intersection at which all traffic moves counterclockwise around a central island.

Scoping

At the beginning of a transportation project, scoping is the process of identifying the environmental issues to be studied in a NEPA EIS. Agency and public input is required to complete scoping.

Section 106

The Section 106 process of the National Historic Preservation Act of 1966 is designed to identify and resolve potential conflicts between historic preservation concerns and federal actions. Implementing regulations focus on preservation options, including avoidance, rehabilitation, modified use, marking, and relocation. Data recovery is often performed for unavoidable effects.

Section 4(f)

Section 4(f) originated in the U.S. Department of Transportation Act of 1966, which declared that special effort should be made to preserve the natural beauty of the countryside and public parks and recreation lands, wildlife and waterfowl resources, and historic sites.

Signatory Agency Committee (SAC)

The state and federal agencies meet quarterly to discuss projects like the SR 167 Extension as part of the Signatory Agency Committee. Aquatic resources are the primary focus of this committee. Concurrence is obtained from the signatory agencies at three key points in the NEPA process.

Shoulder

The shoulder is the portion of the roadway contiguous with the traveled way, primarily for the accommodation of stopped vehicles, emergencies, lateral support of the traveled way, and pedestrian use.

Study Area

The SR 167 Extension project study area begins at the Port of Tacoma Road and extends in a southeasterly direction to the SR 512/SR 167 interchange. The study area extends north and east of the proposed SR 167 to the hillsides above the floodplain of the Puyallup River, encompassing the Hylebos Basin. To the south and west, the study area extends to the Puyallup River.

Tier I and Tier II EIS

In 1990 the Federal Highway Administration (FHWA) and WSDOT decided to divide the SR 167 Extension project NEPA process into two steps (tiers) as permitted in the federal guidelines. The first tier (Tier I) evaluates different corridor options and selects a preferred corridor. The second tier (Tier II) evaluates and selects a preferred design alternative within the selected corridor. In both cases, the selection process involves evaluating the environmental consequences of different alternatives and identifying ways to avoid, minimize, or mitigate the environmental impacts.

Tier I EIS: The Tier I Environmental Impact Statement (EIS) process for the SR 167 Extension project began in 1990 and analyzed the location and environmental aspects of different corridor options. A Tier I Draft EIS (DEIS) was published in June of 1993 and a public hearing was held on July 15, 1993. Following the public hearing and DEIS review period in July 1993, FHWA required WSDOT to prepare a Major Investment Study (MIS). Ultimately, the Tier I Final EIS (FEIS) was published in April 1999. Tier I concluded in June 1999 with a Record of Decision (ROD) that determined that Alternative 2 was environmentally preferred corridor.

Tier II EIS: The Tier II EIS process began on July 13, 1999, with project scoping. FHWA and WSDOT prepared a Study Plan and formed an Interdisciplinary Team (IDT) to guide the development of the Tier II EIS. The Study Plan was completed in June 2000 and identified the environmental areas to be studied in the Tier II EIS. In February 2003, FHWA and WSDOT issued the Tier II DEIS for public comment. Public Hearings were held March 18 and 20. The Tier II FEIS responds to public comments on the DEIS and provides supplemental information.

Traffic Barrier

A traffic barrier is a longitudinal barrier including bridge rail or an impact attenuator which is used to redirect vehicles from hazards located within an established design clear zone; prevent median crossovers; prevent errant vehicles from going over the side of a bridge structure; and protect workers, pedestrians, and bicyclists from vehicular traffic.

Transportation Demand Management (TDM)

Transportation Demand Management (TDM) includes various strategies to encourage more efficient travel patterns and behaviors. TDM strategies provide multiple benefits including reduced traffic congestion, road and parking facility cost savings, user financial savings, increased road safety, increased travel choice (especially for non-drivers), increased equity, reduced pollution, and energy savings.

Transportation System Management (TSM)

Transportation System Management (TSM) are closely related to facility infrastructure design, operations and efficiencies, and serve to improve the flow improve of traffic by constructing new facilities to move passengers efficiently within the existing corridor, implementing roadway design improvements and providing the motorist sufficient advance information to make route or conveyance choices, as well as managing daily problems on the highway. Intelligent Transportation Systems (ITS) are a subset of TSM.

Traveled Way

The traveled way is the portion of the roadway intended for the movement of vehicles exclusive of shoulders and lanes for parking, turning, and storage for turning.

Value Engineering

Value Engineering is the systematic application of recognized techniques by a multi-disciplined team to: identify the function of a product or service and establish a worth for that function; generate alternatives through creative thinking; provide the function(s) needed to accomplish the original purpose; and assure lowest overall cost without sacrificing safety, necessary quality, or environmental attributes.

Weigh Station

A weigh station is a roadside facility for of weighing and inspecting oversize and overweight vehicles. Weighing facilities or stations are needed to protect state highways from overweight vehicles, to conduct vehicle safety inspection, and to obtain truck data for planning and research.

Wetland

The U.S. Army Corps of Engineers defines a wetland by the presence of three criteria: moisture, soil-type, and hydrophytic (water-bearing) vegetation. In most cases these criteria must be present before an area can be classified as a wetland. The Washington State Department of Ecology further rates wetlands in four categories based on their sensitivity to disturbance, rarity, functions they provide, and whether or not they can be replaced. Category I: Wetlands that have the highest quality with functions and values too difficult to be replaced. Category II: Wetlands that provide high levels of some functions and are difficult but not impossible to replace. Category III: Wetlands that provide a moderate level of functions and have been disturbed in some ways. Category IV: Wetlands with the lowest levels of functions and are often heavily disturbed. These are good candidates for replacement or improvement.

Please Note: Definitions for many words used in this FEIS document can also be found in the Abbreviations and Acronyms section, page aa-i in the FEIS front matter.

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